How to Create a Histogram by Hand:
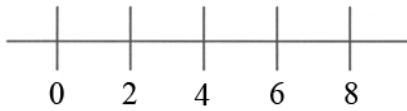
1. The bin is the width (or interval) of the horizontal axis. The vertical axis is the frequency (or count) that falls into each bin. When counting the data values that fall into each bin you include the value on the left boundary and do not include the value on the right boundary. From the in-class example pg. 76 #37 where the bin width was 2 the horizontal axis was as follows:
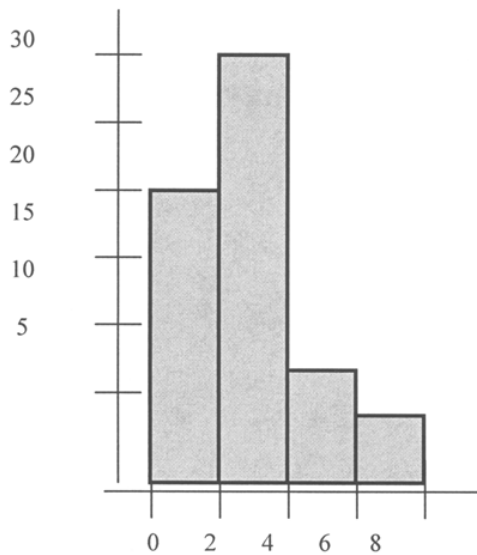

So when counting the data values 0 and 1 go into the first bin, 2 and 3 go into the second bin, 4 and 5 go into the third bin, 6 and 7 go into the fourth (last) bin.

2. Count how many data values fall into each bin, this is the frequency for the vertical axis.
3. Create a bar that represents the frequency for each bin, if there is a bin with a count of zero then you will have a gap in the histogram.

Ex: pg. 76 #37 The data below give the number of hurricanes that happened each year from 1944 through 2000 as reported by *Science* magazine.
3, 2, 1, 2, 4, 3, 7, 2, 3, 3, 2, 5, 2, 2, 4, 2, 2, 6, 0, 2, 5, 1, 3, 1, 0, 3, 2, 1, 0, 1, 2, 3, 2, 1, 2, 2, 2, 3, 1, 1, 1, 3, 0, 1, 3, 2, 1, 2, 1, 1, 0, 5, 6, 1, 3, 5, 3

The count for each bin is as follows: first bin = 19, second bin = 29, third bin = 6, fourth bin = 3.

This histogram represents a word art rendering and may not be entirely to scale.